

REMARKS

Claims 1-10 are pending. Claims 1 and 6 are amended. Claim 8 is canceled without prejudice. Since Claims 9 and 10 have been withdrawn from consideration, upon entry of the amendment, Claims 1-7 will be active for the Examiner's consideration. The amendment to Claim 1 is supported by the present Specification on page 21, line 21. The amendment to Claim 6 serves to improve readability. It is believed that no new matter will be added upon entry of the amendment.

An aspect of the present invention is directed to a process which comprises alkoxylating a monool with at least one alkoxylating agent to obtain a polyoxyalkylene alcohol comprising 1 to 5 alkoxy units in the presence of a catalyst which comprises a metallo-organic framework material of metal ions and at least bidentate coordinately bound organic ligands.

The rejection of Claims 1-7 under 35 U.S.C. § 102(a), or in the alternative under 35 U.S.C. § 103(a), over Muller et al. (U.S. 2003/0078311 A1) is respectfully traversed.

Muller does not describe or suggest an alkoxylation reaction of a monool with at least alkoxylating agent in the presence of an MOF catalyst would occur to provide a polyoxyalkylene alcohol comprising 1 to 5 alkoxy units.

Muller describes "an integrated process for a preparation of a polyurethane comprising at least the following steps: (2) reacting **at least one organic compound**, which is capable of being alkoxylated, with **at least one alkoxylating agent**" (see p. 1, [0011]-[0012]; emphasis added herein). Muller states that the organic compound is one that is capable of being alkoxylated, but Muller's possible choices of organic compounds does not include a monool.

As a specific example, the Examiner's attention is directed to Example 2 (pages 8-9), in which dipropylene glycol (a **diol**) is reacted with propylene oxide in the presence a metal-

organic framework (MOF), in which a "total of 2.44 mol propylene oxide/mol starting material were reacted to obtain a polyol" (page 9, lines 4-5).

This is in contrast to that which is claimed herein. That is, Muller does not describe or suggest a process which comprises alkoxylating a monool with at least one alkoxylating agent to obtain a polyoxyalkylene alcohol comprising 1 to 5 alkoxy units in the presence of a catalyst which comprises a metallo-organic framework material of metal ions and at least bidentate coordinately bound organic ligands.

It is kindly requested that the Examiner acknowledge this differences and withdraw this rejection.

The rejection of Claims 1-5 under 35 U.S.C. § 102(a), or in the alternative under 35 U.S.C. § 103(a), over Mueller et al. (DE 1011230; see U.S. equivalent US 2004/0097724 A1) is respectfully traversed.

Mueller describes an alkoxylating process which entails adding an alkoxide unit (R^1O^-), which is obtained from an alcohol (R^1OH), to an acetylene or allene (see formula IV or V; [0032]) to obtain an alkoxy-ene compound (formula I) or a geminal-bis(alkoxy) hydrocarbon (formula II).

It is true that Mueller describes a general procedure for the preparation of metallo-organic frameworks (MOFs) and their potential catalytic applications (see paragraphs [0019]-[0024] and [0027]-[0028]). Amongst the 31 general and specific reaction types, Mueller suggests *alkoxylation*. However, in the context of Mueller's disclosure, alkoxylation is related to the addition of alcohols onto acetylenes or allenes (see [0031]-[0032]). Within the framework of Mueller's disclosure, the alkoxylating agent is the alcohol (or monool).

This is in contrast to that which is claimed in Claim 1 in which the monool and alkoxylating agent are different entities.

Mueller does not describe or suggest a process which comprises alkoxylating a monool with at least one alkoxylating agent in the presence of an MOF to obtain a polyoxyalkylene alcohol comprising 1 to 5 alkoxy units, as claimed in Claim 1.

Accordingly, it is believed that the claimed process is both novel and unobvious over Mueller's disclosure.

It is kindly requested that the Examiner acknowledge the same and withdraw this rejection.

The rejection of Claims 1 and 6-7 under 35 U.S.C. § 103(a) as being unpatentable over Mueller et al. in view of Hamilton (U.S. 3,328,467) is respectfully traversed.

Mueller describes reactions that may occur in MOF cavities, but **does not** describe or suggest alkoxylating a monool with at least one alkoxylating agent using an MOF as a catalyst in order to obtain a polyalkyleneoxide comprising 1 to 5 alkoxy groups.

Hamilton describes reacting a monool with an alkoxylating agent employing a zeolite (i.e., aluminosilicate cavities) having "cation sites [that] are formed by the presence of certain exchangeable metal and/or hydrogen cations ionically bonded or chemisorbed within the ordered internal structure of the aluminosilicate" (col. 1, lines 17-21).

Applicants note that the combined disclosure of Mueller and Hamilton does not describe or even suggest a process which comprises alkoxylating a monool with at least one alkoxylating agent to obtain a polyoxyalkylene alcohol comprising 1 to 5 alkoxy units in the presence of a catalyst which comprises a metallo-organic framework material of metal ions and at least bidentate coordinately bound organic ligands.

Applicants respectfully request that the Examiner recognize this difference, and withdraw this rejection.

The rejection of Claims 1-7 under 35 U.S.C. § 103(a) as being unpatentable over Hamilton in view of Yaghi (U.S. 5,608,508) is respectfully traversed.

As noted above, Hamilton does not describe or suggest the process as claimed in Claim 1.

Yaghi's disclosure describes the preparation and physical properties of a few selected MOFs. Yaghi suggests that these materials may be employed in catalysis (col. 3, ll. 60-67). Yaghi does not describe or suggest a reaction of a monool with at least one alkoxyating agent in the presence of the metal organic framework to obtain a polyalkylene alcohol comprising 1 to 5 alkoxy groups.

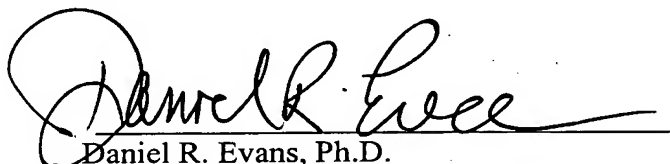
Therefore, it is believed that the combined disclosures do not render the claimed invention obvious.

It is kindly requested that the Examiner acknowledge the same, and withdraw this rejection.

It is believed that the application is in condition for allowance. Should the Examiner deem that a personal or telephonic interview would be helpful in advancing this application toward allowance, she is encouraged to contact Applicants' undersigned representative at the below-listed telephone number.

Respectfully submitted,

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